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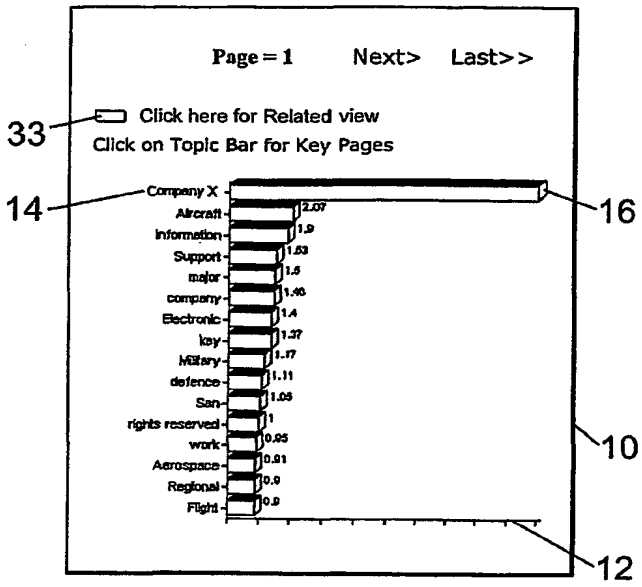

(57) Abstract: An interactive/electronic guide (10) for allowing navigation around a group of electronic documents, such as on internet or in an intranet site or such like, the guide being operable automatically to present a plurality of topic identifiers (14) together with an indication (16) of the importance of the topics identified within a site. Each topic (14,16) is user selectable. Selection of a given topic (14,16) provides access to information on that topic. Preferably, the guide (10) also provides information about multiple sites that are potentially related by content as well as an indication of a degree of similarity in content between such multiple sites.

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NAVIGATING THROUGH WEBSITES AND LIKE INFORMATION SOURCES

The present invention relates to an improved system and method for locating and navigating to information contained within groups of information on the worldwide web, such as websites, or similar information sources. The present invention also relates to a system and method for generating an interactive guide, which allows easy navigation to such information.

Senior executives and researchers often have difficulty in obtaining accurate information about what is going on at a detailed level in corporate organisations. Increasingly however, corporate web sites contain a wealth of information, for example, about a company's products, staff and organisation. If easy access to this information were readily available, it could provide a valuable resource. At present, however, it can be difficult to locate relevant websites and find information due to the inefficiency of current web site location and browsing techniques, and the difficulty of identifying important topics amongst the mass of information available.

Various searching and browsing techniques are available at present for locating and navigating through web sites. The first of these is the conventional search engine. This identifies web pages that contain specific words or phrases entered in the search engine box. This technique relies on the searcher knowing the exact word or phrase that is used on a web site to identify a specific topic. Whilst this method of searching can be effective for hard information such as product names, it is less effective when searching for more abstract concepts and where different words and phrases can be used to describe the same or related information. For

example, a search on the word "teacher" on a search engine or web site can be effective if all the required information is on a page that contains the word "teacher". However, if there is related information on another page that does not include the word "teacher", for example topics such as: "education", "school", "children", and "classroom", then this will not be located by a search engine search on the key word "teacher" alone. A further disadvantage of this approach when looking for specific types of business (e.g. when locating potential merger and acquisition targets, marketing and sales prospects or business partners) is that it locates individual web pages, which may reflect only a tiny proportion of the activities of a given company. There can be tens of thousands of web pages on a given corporate website and hence generally a single page cannot reflect the activities of a company as a whole, making the process of identifying companies based on the range of their activities difficult.

To assist the user navigate within a web-site, a conventional approach is to provide a site map or links page. These typically provide a long list of subject topics and sub-topics, with links to individual pages that contain these topics in websites. Site maps are generally manually generated and at a relatively high level. Hence, they often lack significant detail and can be relatively flat in organisation and structure. This means that obtaining information can be quite difficult since it not usually possible to "drill-down" beyond one level of information, requiring the user to return to the site map each time they wish to browse information about a different topic.

Another conventional technique for navigating round web sites is manual browsing. The web typically contains millions of pages that are interlinked by multiple possible paths between each page. Selecting links contained within a particular page allows a user to navigate to the next linked page that contains information identified by the link text or graphic. However, it can be difficult when browsing manually to ensure that pages containing relevant information have not been missed and that a page has not been visited previously. In addition, textual links used on a typical web site often contain insufficient words due to space restrictions to adequately describe the multitude of topics that can be reached via the link. A further disadvantage of manual browsing is that the user often skim-reads each web page, which inevitably leads to more perceptive emphasis on header text and other items that are highlighted visually on the page. This may skew the effectiveness of the user in identifying key information when skimming a page, if the required key words are not contained in the emphasised text.

An object of the invention is to provide an improved system and method for the location of groups of information on the world-wide web or other such like information source. Such groups typically will be contained within websites identified by a Uniform Resource Locator (URL) such as www.google.com or www.uspto.gov.

Another object of the invention is to provide an improved method for navigating between and within groups of information on the world-wide web or other information store. Such groups typically will be contained within the

confines of a single website, or within websites that are related by content.

Various aspects of the present invention are defined in the accompanying independent claims. Some preferred features are defined in the dependent claims.

According to one aspect of the invention, there is provided a method for profiling a group or collection of text based electronic documents, the method comprising: analysing every document in the group to identify key topics; allocating a measure of importance to identified key topics, and using that measure to generate a topic profile that includes a plurality of topic identifiers and an indication of the importance of the topics identified to the group as a whole.

Preferably, the group of electronic documents comprises pages of a web site. In this case, the method may further involve downloading each page of the site in order to do the step of analysing.

The step of analysing the documents may involve searching for specific words. Additionally or alternatively, the step of analysing involves searching and eliminating topics that are not related to important key words. Additionally or alternatively, the step of analysing may involve determining a list of words related to each of a plurality of key topics identified in the group; determining whether each key topic appears in the list of related words for any of the other key topics in the group and discarding any of the key topics where the key topic does not appear in the list of related words for any other of the key topics.

According to another aspect of the invention, there is provided a system for profiling a group or collection of text based electronic documents, the system

comprising: means for analysing every document in the group to identify key topics; means for allocating a measure of importance to identified key topics, and means for using that measure to generate a topic profile that includes a plurality of topic identifiers and a measure or indication of the importance of the topics identified to the group as a whole.

According to yet another aspect of the invention, there is provided a method of navigating within a group of electronic documents, such as a subset of the world-wide web, for example an internet or intranet site or such like, the method comprising: automatically presenting on a screen or display a plurality of topic identifiers, together with an indication of the relative importance of the topics identified to the group as a whole, each topic being user selectable; receiving a user selection of a given topic and providing access to information on the selected topic in response to the user selection.

By automatically presenting the topic identifiers together with their relative importance, without the need for a user to initiate a keyword search, there is provided a simple but effective technique for allowing a user to navigate easily towards information that is of interest.

According to still another aspect of the invention, there is provided an interactive/electronic guide for allowing navigation around a group of electronic documents, such as an internet or intranet site or such like, the guide being operable automatically to present a plurality of topic identifiers together with an indication of the importance of the topics identified, each topic being user selectable, wherein selection of a

given topic provides access to information on that selected topic.

According to a still further aspect of the invention, there is provided a method for locating groups of information on the world wide web or in other information stores, the method comprising: identifying a plurality of candidate groups of information; deriving a profile of content for each candidate group; comparing the profile of a first candidate group with each and every other candidate group in said plurality of candidate groups and identifying and measuring any difference or differences in topic profiles between the first and other candidate groups.

By comparing profiles of content of a plurality of different web sites, there is provided a simple mechanism for identifying sites that have similar or related content, or identifying sites that match any desired profile of content.

According to a yet still further aspect of the invention, there is provided a method for navigating between and within groups of information on the world-wide web or other information store comprising: presenting on a screen or display a plurality of group identifiers, together with an indication of the similarity of the group identified relative to a desired profile of content, each group being user selectable; receiving a user selection of a given group identifier, and providing access to information on the selected group in response to the user selection.

According to yet another aspect of the invention, there is provided an interactive/electronic guide for locating groups of documents, such as websites on the world-wide web or such like, the guide being operable to

present a plurality of group identifiers, together with an indication of the similarity of each group to a target profile of content, each group identifier being user selectable, wherein selection of a group identifier provides access to information on that selected group.

Various aspects of the invention will now be described by way of example only and with reference to the accompanying drawings, of which

Figure 1 is an example view of a Main View of an electronic guide for locating and navigating to and within web sites that has a list of key site topics;

Figure 2 is an example view of a Subsequent View that is presented to a user when a key topic is selected from the list of Figure 1;

Figure 3 is a diagram of the hierarchy of links between the pages shown in Figures 1 and 2;

Figure 4 is an example view of a Related View of an electronic guide for locating and navigating to web sites that are related to a target topic profile such as that shown in Figure 1;

Figure 5 illustrates the infinite drill-through capability of the guide;

Figure 6 illustrates various ways in which a user can navigate through the guide of Figures 1 to 3;

Figure 7 is a high level flow diagram of the steps for creating the guide of Figures 1 to 3;

Figure 8 is more detailed flow diagram of the steps taken to create the guide of Figures 1 to 3;

Figure 9 is a flow diagram of the steps for devising an initial list of key topics;

Figure 10 is a flow diagram of various steps for reducing the initial key topic list derived from carrying out the steps of Figure 9;

Figure 11 illustrates the use of related words to discard topics, which are not related to the subset of information as a whole;

Figure 12 is a diagram that illustrates a process for comparing topic profiles between two groups of information;

Figure 13 is a flow diagram of the steps required to compare profiles of two websites;

Figure 14 is a flow diagram of the steps for creating the Main View page of Figure 1 using key topic information;

Figure 15 is a flow diagram of the steps for creating the Subsequent View page of Figure 2, and

Figure 16 is a flow diagram of the steps for creating the Related View page of Figure 3.

Figure 1 shows a Main View page 10 of an electronic guide 12 for a web site, in which user selectable key topic identifiers 14 are automatically presented, without the user having to enter a topic or keyword to initiate a search. In practice, the guide 12 can be presented to a viewer prior to pages from the web site being downloaded from a remote server. Mechanisms for creating and downloading web sites are, of course, very well known and so will not be described herein in detail. Typically, the key topic list extends over several site pages. To accommodate navigation between these pages, there is provided a set navigation buttons including "first", "next", "previous" and "last" buttons. Clicking any one of these buttons this causes the desired set of key topics to be listed. Clicking through successive sets of key topics takes the user from the most important set to least important set of key topics in consecutive order.

The key topic identifiers 14 of the Main View 10 shown in Figure 1 are provided in a pre-determined order, with the most important topics being presented first. This means that a searcher does not need to know in advance the actual text for a topic that the authors have used in a web site, but rather can select from a list of possible topics of most interest to them. So, for example, a web site for teachers might identify all the topics "teacher", "education", "school", "children", and "classroom" as being the most important topics in the site, and display these at the top of the list of important topics, allowing the user to click on any of these to navigate to relevant content. Given that a visitor to a web site for, or about, teachers is likely to be interested in all these topics, this is a key benefit over a conventional search engine, which would return content about the single topic "teacher" only when entered in a search box. Likewise, and as shown in Figure 1, for a web site for a company, such as company X, that makes aeronautical engineering products, the topics could be "electronic", "aircraft", "company" etc.

As well as presenting topics so that the most important are first in the list, the Main View page of Figure 1 provides a visual topic profile that gives a clear visual indication of the relative importance of various topics. In particular, Figure 1 shows a list of key topics, together with a graphical indication 16 of the importance of these topics, with the most important topics on the site being presented at the top. More specifically, for each topic in the guide of Figure 1, there is provided a bar 16 that illustrates the importance of that topic to the site. This allows important content to be highlighted even if it is hidden

deep in the web site rather than clearly displayed on the home page of the site. The key topics list can show each of the key topics as a single or multi-word phrase.

Each topic identifier 14 or bar 16 in the key topic profile may be selected. Clicking on the identifier and/or bar causes a Subsequent View 18, containing another topic list, to be presented. In this Subsequent View 18, the information may be related specifically to a page that contains content relevant to the selected key topic in the Main View 10.

An example of a Subsequent View 18 that is presented when one of the topics 14 or bars 16 of Figure 1 is selected is shown in Figure 2. This has a live web page 20 in a frame. In this example, the guide is adapted to allow the user to click to the live web page 20 itself; to other Subsequent View pages that are important to the selected topic using "first", "next", "previous" and "last" buttons, or to still other Subsequent View pages that contain information related to the other key topics 24 listed on this Subsequent View page. These other key topics 24 are those which are important to this page only, rather than important to the website as whole and are listed in descending order of importance to the page. This allows easy access to related topics because inter-related topics are often clustered on the same page and so clicking on any of these related key topics takes the user straight to the top page for that key topic, making for easy browsing. For example, the Subsequent View for a page about "Doctor Smith's chemistry class" may list the following key topics relevant to this page only: Doctor Smith; chemistry; Bunsen burner; element; chemistry department, and allow one-click access to top Subsequent View pages for each of these key topics on the page.

Such click-through capabilities allow easy access to key content via a drill-down/drill-through capability, which eliminates the need to return to a site map page or Main View when wishing to navigate to another important topic within a site.

In the Subsequent View 18 of Figure 2 topic ratings are also provided. These show how highly this topic rates relative to other topics, both on this page and on the site as a whole. In particular, an indicator 26 having two scales and two pointers is provided. The pointer 28 of the first scale indicates the importance of the selected key topic to the overall site. The pointer 30 of the second scale indicates the importance of a selected topic in the Subsequent View list relative to other topics in that Subsequent View list. Clicking through successive Subsequent Views of key pages for a selected topic using navigation buttons such as "next" takes the user from the most important to least important key pages for this topic in consecutive order. Figure 3 shows how the pages of Figures 1 and 2 are linked.

As well as providing a mechanism for navigating a web site, the guide of Figure 1 can be adapted to provide a means for linking a user to webs sites that have similar topic profiles, thereby to provide an inter-site access mechanism as well as intra-site access. To this end, the guide includes one or more Related View pages 32. These can be accessed by clicking on a "Related View" link 33, which is presented in each of the Main and Subsequent Views. Figure 4 shows an example of a Related View page 32 for navigating to such related web sites, in which user selectable website identifiers 34 are presented. The related website identifiers 34 of the Related View 32 shown in Figure 4 are provided in a pre-

determined order, with the websites having a topic profile that is most similar to the target topic profile being presented first. Preferably, the Related View page 32 provides a visual profile that gives a clear visual indication of the similarity of websites to the target profile. In particular, Figure 4 shows a list of websites, together with a graphical indication 36 of the similarity of the websites to the target profile, with the most similar websites being presented at the start. More specifically, for each website in the page of Figure 4, there is provided a bar 36 that illustrates the similarity of that website to the target profile. This means that a searcher can easily select from a list of related websites. This allows the user to locate similar websites, which can be useful, for example, when identifying merger and acquisition targets, when the target profile of both potential acquirer and acquiree may be similar.

Typically, the website list of Figure 4 extends over several site pages. As before, to accommodate this, generally, there is provided a set of navigation buttons 38 including "first", "next", "previous" and "last" buttons. Clicking these allows a user to cause the desired set of websites to be listed. Clicking through successive sets of websites takes the user from the most closely related set to least closely related set of websites in consecutive order. In addition, each website identifier 34 or bar 36 in the website list may be selected. Preferably, the Related View page is adapted so that clicking on either of the identifier 34 or bar 36 causes more information about the overlaps and differences between the respective topic profiles to be presented.

The guide of Figure 1 to 3 has a linked nature that provides a drill-down capability of unlimited depth, as shown in Figure 5. This is not possible in a conventional site map. This drill-down capability relies on the fact that inter-related topics are often clustered around each other in text on a page. So, for example, related topics such as "education", "school", "children", and "classroom" are often clustered on a web page around the word "teacher". This allows a searcher who has clicked-through from the Main View 10 to the first Subsequent View 18 for the topic "teacher" to review all the other key topics on that page, including those closely related, and then click-through to the first Subsequent View for any of the other key topics on the page. This allows an infinite drill-through the site, clicking between topics and pages without returning to the Main View or a site map, thereby providing a significantly improved technique for navigating around the site. In contrast, a conventional site map would require the user to click back to the site map to click-through to pages for another topic on the site. In addition to this, by providing the Related View pages, the user can advantageously conduct an inter-site search and navigation.

Figure 6 shows the different navigation routes that can be used when navigating between the navigation pages of Figure 1, 2 and 3. From the initial Main View, preferably starting with the most important topics, the buttons "First", "Next", "Previous" and "Last" can be used to navigate through the list of key topics in the Main View. Selecting a Topic Identifier in the Main View causes a Subsequent View page to be presented, and further Subsequent View pages can be navigated using

"First", "Next", "Previous" and "Last" buttons to navigate, preferably from most important to least important key pages for the topic selected previously in the Main View. Selecting the "Main View" button in the Subsequent View returns to the Main View for the site. Selecting the "Related View" button 33 in any Subsequent or Main View navigates to the Related View page, from where the "First", "Next", "Previous" and "Last" buttons can be used to navigate the list of related sites, preferably starting with the most similar site. Selecting any related website identifier (generally a URL) in the Related View will navigate to the Main View for the related site, while selecting the "Related View" button in the Main View will navigate to the Related View of similar sites, preferably starting with the most similar.

Figure 7 shows the steps for constructing the guides of Figure 1, 2 and 3. In practice, these steps would be carried out by guide creation/ analysis software running in a suitable processor (not shown). The first step is to fully and comprehensively analyse the web site(s) of interest to identify key subject matter topics. To do this, some or all of the accessible pages from each target web site is firstly 40 downloaded from the server or computer based processor on which it is provided to the processor that includes the analysis software. Each page is then analysed 42 to identify key topics. The importance of each key topic is then determined 44, and profiles of topics are compared. Finally, this information is used to generate the guide(s) 46. More specifically, each page of the site is processed, once only, to extract important topics. This ensures that the key topics on each page are identified and logged only once on each page. Mutually exclusive, mutually

exhaustive processing is applied to all accessible content on the web site. The process does not distinguish between different content formats. Hence, text that is formatted as a heading is processed the same as body text to eliminate the perceptive bias, which can occur when a user skim-reads a page.

In order to identify key topics, the basic technique used is to process every word on the site, and successively reduce the number of potential topics from the entire word content down to a manageable level, thereby to highlight key topics. Figure 8 shows the steps that are taken in an example method for identifying key topics. This involves identifying an initial reduced list of single key words 48; amending the reduced list to include multi-word phrases 50; excluding single words, other than some selected single words from the reduced list 52; allocating a measure of importance according to frequency of incidence of the topic in the site 54, and allocating a rank according to the measure of importance 56. Figure 9 shows in more detail steps for identifying the initial reduced list. This involves counting the number of occurrences of every word in the site 58; comparing these numbers with an average frequency for each word in either the specific language of the website as a whole e.g. English, or a subset of this language 60 and selecting those words that have an above average frequency of occurrence 62.

Once the initial reduced list is determined, several techniques are employed to reduce the number of key topics that are included. This is necessary because conventional search engine techniques have limited accuracy and relevance, often including phrases in the reduced list that are not really key to the specific

content of the web site. One technique for reducing the key topics is to search for and include multi-word phrases. This is done by locating each occurrence of a word in the initial reduced list on the site and extracting and appending subsequent words from the site to form key phrases for each key word 64, as illustrated in Figure 10. The occurrence of each of these key phrases is counted 66, and those phrases that have the highest frequency are selected and included in the list 68.

After the multi-word phrases are analysed and added to the list, some of the single word topics on the list are excluded. This is because, in general, single word topics convey less-specific information to the user than multi-word topics, and hence may be less relevant to the user who wishes to identify specific information quickly. For example, the addition of a second, perhaps descriptive word to a single word significantly enhances the meaning, e.g. "chemistry teacher" conveys more information about the teacher than just "teacher" and hence chemistry teacher can be retained as a more specific and hence potentially more relevant topic than teacher. Nevertheless, some single word exceptions are retained. For example, topics that are proper nouns, for example the names of people, places or products, are identified by their use of a capital letter and included because these often refer to proprietary or personal information, e.g. trade names or the names of important people such as the CEO, which can be indicative of important topics for an executive or researcher to find. Words that are not included in a standard dictionary can also be retained. This is because any word not in a dictionary is likely to be highly specialised or unusual, and hence there is a high chance this will be related to

this web site, regardless of the specific content of the web site.

The web site analysis also excludes those topics that are not related to at least one other topic in the reduced list, as illustrated in Figure 11. To do this, the analysis involves determining a list of words related to each of a plurality of key topics identified in the website and determining whether each key topic appears in the list of related words for any of the other key topics in the website. Then any of the key topics where the key topic does not appear in the list of related words for any other of the key topics are discarded. A dictionary or thesaurus or other method can be used to determine related words. As an example, on the site about "teachers", a topic of "transport" bears no obvious relation to any of the other, teacher-related key topics, and hence can be excluded, whereas a topic of "class" in the reduced list will be identified as related to "teacher" (and probably also to other topics in the reduced list) and hence will be included. Similarly, words which can be loosely related to "education", although they do not appear to be related to "teacher" can also be included, building a list of key topics which gradually reduces in relevance as the reduced list is traversed but which largely excludes unrelated topics.

An advantage of testing for related key words is that the process can increase the accuracy of results by removing unrelated topics, while preventing the conventional need to have advance knowledge of the content of the site being analysed to select initial key words to which all others have to be related. This is because all potential topic words in the reduced list are tested for a relationship to every other word in the

reduced topic list using a standard thesaurus, rather than tested for a relationship to key words which are selected through prior knowledge of the content of the site. Alternatively, a subset of the reduced topic list can be tested to reduce the processing required.

The search process is adapted to give preference to topics with large variance in position with respect to formatting elements such as bounding boxes (hidden or visible) on and in a page. This is because many words that are not true topics appear in the same place in many or all pages e.g. in a banner or button bar repeated at the same place on each page. These can appear erroneously in conventional searching, which relies on frequency of occurrence alone. However, a feature of real topics is that they are often spread amongst text, rather than at one specific place in the document. As a result, checking for the variance in position of topics with respect to the formatting elements, which generally surround banners and button bars, tends to exclude some of these statically-located elements from the reduced list.

Once the reduced list of key topics on all pages of the site is determined, the content of each page that has been previously logged is re-analysed, page-by-page to identify those pages that rank highest for topics in the final reduced list. At the same time, each page is also processed to generate a page-by-page topic list of key topics on each page. The reduced list is then used to generate all Main Views and the page-by-page topic list is used to generate all Subsequent Views. In order to provide a topic rank, the incidence of each topic is used to allocate a measure of importance to that topic. This can be done by counting the number of instances a

particular topic is mentioned on the site as a whole. Preferably, the measure of importance is expressed as a percentage of the total number of words on the website as a whole or alternatively as a percentage of the sum of the instances of all of the key topic words.

When a measure of the importance of each topic is determined, this is used to construct the Main View 10 of the guide or map. Generally, topics that are of most importance are presented at the top of a key topic list, as shown in Figure 1. In this way, the guide in which the invention is embodied provides a very simple and effective mechanism to enable the user to navigate around a web site. Ideally, the guide or map is presented automatically to a user when the web site is accessed, without the need for a user to initiate a keyword search. In order to ensure that the map is up-to-date, the web site should be analysed regularly.

In summary, the overall strategy for analysing the site is as follows: Identify an initial reduced list of single key words by counting the number of occurrences of every word in the site; comparing the number of occurrences of each word with the average frequency of each word in the language of the site; on the web site or over a large number of web sites, or in a target language or languages, and selecting those words having the highest frequency compared with the average. Once this is done, the reduced list is amended to include multi-word phrases by: locating each occurrence of words in the reduced list on the site and extracting and appending subsequent words on the site to form key phrases for each key word; counting the number of occurrences of each key phrase in the site, and selecting those phrases that have the highest frequency on site. Then, single words are

excluded from the reduced list with the exception of proper nouns or words, words that are not in the dictionary or words that are related to other words in reduced list. The phrases are then ranked according to their incidence in the site and the highest-ranking phrases are selected and included in the final key topic list for the site as a whole. Subsequent to this, the content of each page is re-analysed page-by-page from previously logged information to identify those pages with the highest importance for each topic in the final reduced list. All other key topics in the reduced list on the page are also then logged in a page-by-page key topic list to be used to generate Subsequent Views later in the process. Once this is done, the Main and Subsequent Views of the guide can be generated.

The above technique for determining topic profiles can be applied to a plurality of different web sites, and these profiles can be used to identify a degree of similarity. Once measures of importance have been determined for each of the key topics on more than one site, the resulting topic profiles can be compared by selecting each website in turn, then selecting every other website in turn to form a series of {target website, candidate website} pairs. The topic profiles for each of these pairs can then be compared by selecting each topic in the target profile, comparing the measure of importance of this topic against the measure of importance of the same or similar topic(s) in the candidate website, if they exist. This is illustrated in Figure 12. In the preferred embodiment, this can be done relatively simply, because the measure of importance is normalised as part of the profile building process described above, so that the measure of importance is

generally expressed as a percentage or fraction of a pre-determined characteristic. An aggregate measure of importance can then be computed which is an aggregate of the comparison values across all topics common to both sites. As a variation on this, rather than using a topic profile generated as described previously, the target profile may be a manual profile that contains more than one topic and may contain a measure of importance of the topic to the target website as a whole.

In order to compare the topic profiles, the first and simplest method is to count the topics that are common to both profiles. A second, potentially more accurate method is shown in Figure 13. This involves selecting a target profile 70 and a first candidate website profile 72. Then, preferably starting from the most important topic in the target profile, each topic in that profile that is common to the candidate profile is selected 74, and compared with the same or similar topic of the candidate site. In particular, the magnitude of a topic's measure of importance (e.g. topic word frequency) in both profiles is compared, as illustrated in Figure 12. This provides a comparison value for the similarity of this topic in the profiles, across the two sites being compared. This is repeated for all key topics in the target profile 76. Deriving an aggregate comparison value then can be achieved by summing the magnitude of the comparison for all common topics across the two sites being compared. This process is then repeated for all candidate web-sites 78.

Once key topics are identified, the Main, Subsequent and Related Views for the guide can be generated. The steps for doing this are shown in Figures 14, 15 and 16. To do this, three page templates firstly have to be

generated, one for the Main View, as shown in Figure 1, one for the Subsequent Views, that is the pages shown in Figure 2 and one for the Related Views, that is the pages shown in Figure 3. These templates can take any desired form or layout or design.

Once the templates are provided, they can be used to generate the guide. As shown in Figure 14, generating the Main View pages involves selecting a page template structure for Figure 1, i.e. a Main View page layout (HTML code) 80. Then, preferably starting from the most important topic in the key topic list, each topic and rank is inserted as HTML code in the template 82. The page is then published to a results web site 84. This is repeated until all key topics have been inserted into templates 86. Figure 15 shows the steps for generating Subsequent View pages. This may be done after generation of the Main View pages, and involves firstly selecting a page template structure for Figure 2 page layout (HTML code) 88. Then preferably starting from the most important page for each topic, key topics from the page-by-page key topic list and corresponding ranks are inserted as HTML code in the template 90. The page is then published to the results web site 92. This is repeated until all pages for the key topic have been inserted into templates 94, and the whole process is then repeated for all other key topics in the reduced list 96. Finally, the Related View pages, as illustrated in Figure 3, are then generated by selecting a suitable page template structure, as shown in Figure 16. Then, preferably starting from the most similar website to the target profile in the related website list, each website and similarity is inserted as HTML code in the template. The page is then published to a results web site. This

is repeated until all related websites have been inserted into templates.

Once the guide is created, it can be incorporated into the relevant web site or hosted as a separate, linked web site, in such a manner that it is presented to a user when the site is selected or when the user wishes to browse the site. Techniques for implementing this are of course well known in the art.

A skilled person will appreciate that variations of the disclosed arrangements are possible without departing from the invention. For example, a home page or company financial information may be presented in the Main View together with the key topics list of Figure 1. This would typically show a preview of the site home page, thereby giving a quick visual indication that the user is looking at the correct site. As a second example, the Subsequent View may show a page preview of the page, which the topic list refers to, to allow the user to quickly evaluate whether the page warrants further investigation e.g. clicking to the live page. As yet another alternative, although the invention is described primarily with reference to web sites and the internet, it will be appreciated that the techniques described herein could be used to provide a mechanism for navigating round any collection of text based electronic documents. For example, the system could be used in or applied to a Windows based system so as to provide a topic profile of all text-based documents stored on a local PC regardless of the format. Accordingly, the above description of a specific embodiment is made by way of example only and not for the purposes of limitation. It will be clear to the skilled person that minor

modifications may be made without significant changes to the operation described.

Claims

1. An interactive/electronic guide for allowing navigation around a group of electronic documents, such as an internet or intranet site or such like, the guide being operable automatically to present a plurality of topic identifiers together with an indication of the importance of the topics identified to the group as a whole or in part, each topic being user selectable, wherein the topic identifiers are presented without the need for a user to initiate a key word search and selection of a given topic provides access to information on that selected topic in the group.

2. A guide as claimed in claim 1 wherein topics are presented in pre-determined order, thereby to provide an indication of the importance of the topics to the group as a whole or in part.

3. A guide as claimed in claim 2 wherein the topics are presented in a descending order of importance, with the most important topics being presented at the start of a list and the least important topics being presented at the end of that list.

4. A guide as claimed in any of claims 1 to 3 wherein the topic identifiers are one or more key word or key phrase identifiers.

5. A guide as claimed in any of claims 1 to 4 wherein a graphical indication is provided to give a visual indication of a topic's importance to the group as a whole or in part.

6. A guide as claimed in claim 5 wherein the graphical identifier is a bar, the length of which provides an indication of the importance of the associated topic to the group as a whole or in part.

7. A guide as claimed in claim 5 or claim 6 wherein the graphical identifier is selectable, thereby to allow the user to select the associated topic.

8. A guide as claimed in any of claims 1 to 7 wherein selection of a given topic causes one of a plurality of additional guide pages to be presented.

9. A guide as claimed in claim 8 that is operable, on selection of any of the topics or topic identifiers, to cause a similar list of additional topic identifiers to be presented or cause a live web page containing content relating to the desired topic to be presented.

10. A guide as claimed in any of the preceding claims that is operable to present related group identifiers for identifying one or more related groups of electronic documents, such as internet or intranet sites, together with an indication or measure of a similarity between a key topic profile of the first group and each related group.

11. A method for allowing navigation within a group of electronic documents, such as a subset of the world-wide web, for example an internet or intranet site or such like, the method comprising: automatically presenting on a screen or display a plurality of topic identifiers,

together with an indication of the relative importance of the topics identified to the group as a whole or in part, each topic being user selectable; receiving a user selection of a given topic and providing access to information on the selected topic in response to the user selection.

12. A method as claimed in claim 11 comprising presenting related group identifiers for identifying one or more related groups of electronic documents, such as internet or intranet sites, together with an indication or measure of a similarity between a key topic profile of the first group and each related group.

13. A system for navigating within a group of electronic documents, such as a subset of the world-wide web, for example an internet or intranet site or such like, the system comprising: means for automatically presenting on a screen or display a plurality of topic identifiers, together with an indication of the relative importance of the topics identified to the group as a whole or in part, each topic being user selectable; means for receiving a user selection of a given topic and means for providing access to information on the selected topic in response to the user selection.

14. A system as claimed in claim 13 that includes means for presenting related group identifiers for identifying one or more related groups of electronic documents, such as internet or intranet sites, together with an indication or measure of a similarity between a key topic profile of the first group and each related group.

15. A computer program, preferably on a data carrier or some other computer readable medium, the computer program being operable to generate an interactive/electronic guide for use in the internet or an intranet or such like, the program having code or instructions configured to: automatically present a plurality of topic identifiers, together with an indication of the importance of the topic to a group of documents as a whole or in part, each topic being user selectable; receive a selection of a given topic, and provide access to information on the selected topic in response to the topic selection.

16. A computer program as claimed in claim 15 that is operable to present related group identifiers for identifying one or more related groups of electronic documents, such as internet or intranet sites, together with an indication or measure of a similarity between a key topic profile of the first group and each related group.

17. A method for locating groups of information on the world wide web or in other information stores, the method comprising: identifying a plurality of candidate groups of information; deriving a profile of content for each candidate group; comparing the profile of a first candidate group with each and every other candidate group in said plurality of candidate groups in order to identify any difference or differences in profiles between the first and other candidate groups.

18. A method as claimed in claim 17, wherein said profile consists of a plurality of topics

19. A method as claimed in claim 17 or claim 18, wherein each said topic is allocated a measure of the importance of said topic to the content of the group as a whole or in part.

20. A method as claimed in claim 19 wherein said step of comparing comprises counting the number of topics common to both first and other candidate groups.

21. A method as claimed in any of claims 17 to 20 wherein the step of comparing incorporates comparing the measures of importance for each key topic in said first candidate group and the measure of importance of same or similar topic in other candidate group.

22. A method as claimed in claim 17 wherein the step of comparing comprises calculating an aggregated comparison across all topics common between said first and the other candidate group.

22. A method as claimed in any of claims 17 to 22 further comprising for any one or more of the candidate groups automatically presenting a plurality of topic identifiers together with an indication of the importance of the topics identified, each topic being user selectable, wherein the topic identifiers are presented without the need for a user to initiate a key word search and selection of a given topic provides access to information on that selected topic.

23. A system for locating groups of information on the world wide web or in other information stores, the system comprising: means for identifying a plurality of candidate groups of information; means for deriving a profile of content for each candidate group, and means for comparing a first candidate group to each and every other second candidate group in said plurality of candidate groups.

24. A system as claimed in claim 23 wherein said comparison means are operable to compute any difference in topic profiles between each and every candidate group.

25. A system as claimed in claim 23 or claim 24 wherein said means for deriving a topic profile comprise means for identifying a plurality of key topics in said group.

26. A system as claimed in any of claims 23 to 25 wherein said means for deriving a key topic incorporate means to allocate a measure of the importance of each said topic to the content of said plurality of candidate groups as a whole or in part.

27. A system as claimed in any of claims 23 to 26 said comparison means consists of means for comparing the difference between the measure of importance for one key topic in first candidate group and measure of importance of same or similar topic in second candidate group.

28. A system as claimed in any of claims 23 to 27 said comparison means incorporates summation means operable to compute an aggregate difference between the profiles of

the first and other candidate groups by summing the individual differences for each topic in said topic profiles.

29. A method for navigating between and within groups of information on the world-wide web or other information store comprising: presenting on a screen or display a plurality of group identifiers, together with an indication of the similarity of the group identified relative to a desired topic profile, each group being user selectable; receiving a user selection of a given group identifier, and providing access to information on the selected group in response to the user selection.

30. A system for navigating between and within groups of information on the world wide web or other information sources, the method comprising: means for presenting on a screen or display a plurality of group identifiers, together with an indication of the similarity of the group identified to a target topic profile, each group being user selectable; means for receiving a user selection of a given group identifier and means for providing access to information on the selected group in response to the user selection.

31. An interactive/electronic guide for locating websites or other groups of information on the world-wide web or such like, the guide being operable to present a plurality of group identifiers, together with an indication of the similarity of each group to a target profile of content topics, each group identifier being user selectable, wherein selection of a group identifier provides access to information on that selected group.

32. A guide as claimed in claim 31 wherein the group identifiers are presented in pre-determined order, thereby to provide an indication of the similarity of the group to a target profile.

33. A guide as claimed in claim 33 wherein the groups are presented in a descending order of similarity, with the most similar group to the target profile being presented at the start of a list and the least similar group being presented at the end of that list.

34. A guide as claimed in any of claims 31 to 33 wherein a graphical indication is provided to provide a visual indication of a group's similarity to the target profile.

35. A guide as claimed in claim 34 wherein the graphical identifier is selectable, thereby to allow the user to select the associated group.

36. A guide as claimed in claim 31 that is operable to cause one of a plurality of additional location pages to be presented on selection of a given group, preferably wherein the location pages include a plurality of topic identifiers, preferably ordered by the importance of the topics identified within the located group, preferably each topic being user selectable, preferably wherein selection of a given topic provides access to information on that selected topic.

37. A computer program, preferably on a data carrier or some other computer readable medium, the computer program being operable to generate a system for use on the internet or intranet site or such like, the program

having code or instruction configured to: present a plurality of group identifiers, together with an indication of the similarity of the group identified relative to a desired topic profile, each group being user selectable; receive a selection of a given group, and provide access to the located group or related information in response to the group selection.

38. A method for profiling a group or collection of text based electronic documents, the method comprising: analysing every document in the group to identify key topics; allocating a measure of importance to identified key topics, and using that measure to generate a topic profile that includes a plurality of topic identifiers and an indication of the importance of each of the topics identified to the group as a whole or in part.

39. A method as claimed in claim 38 wherein the group of electronic documents comprises pages of a web site.

40. A method as claimed in claim 39 further involving downloading each page of the site in order to do the step of analysing.

41. A method as claimed in claim 38 or claim 39 wherein the step of analysing the documents involves searching for specific words.

42. A method as claimed in any of claims 38 to 41 wherein the step of analysing involves searching and eliminating topics that are not related to important key words.

43. A method as claimed in claim 42 comprising: determining a list of words related to each of a plurality of key topics identified in the group; determining whether each key topic appears in the list of related words for any of the other key topics in the group and discarding any of the key topics where the key topics does not appear in the list of related words for any other of the key topics.

44. A system for profiling a group or collection of text based electronic documents, the system comprising: means for analysing every document in the group to identify key topics; means for allocating a measure of importance to identified key topics, and means for using that measure to generate a topic profile that includes a plurality of topic identifiers and an indication of the importance of each of the topics identified to the group as a whole.

45. A system as claimed in claim 44 wherein the group of electronic documents comprises pages of a web site.

46. A system as claimed in claim 45 further comprising means for downloading each page of the site in order to do the analysis.

47. A system as claimed in claim 45 or claim 46 wherein the means for analysing are operable to search for specific words of importance to the site owners.

48. A system as claimed in any of claims 44 to 47 wherein the means for analysing are operable to search for and eliminate topics that are not related to important key words.

49. A system as claimed in claim 48 comprising: means for determining a list of words related to each of a plurality of key topics identified in the group; means for determining whether each key topic appears in the list of related words for any of the other key topics in the group and means for discarding any of the key topics where the key topics does not appear in the list of related words for any other of the key topics.

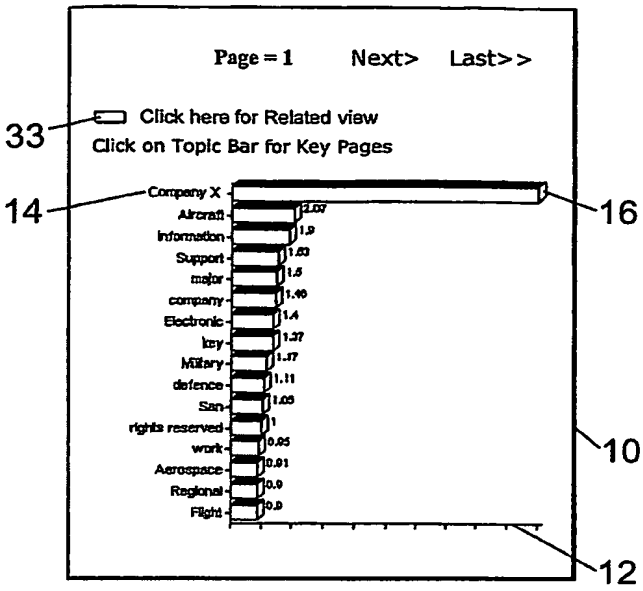
Page = 1 Next> Last>>
Click here for Related view
Click on Topic Bar for Key Pages
33
14
16
10
12
Company X
Aircraft
Information
Support
major
company
Electronic
key
Military
defence
San
rights reserved
work
Aerospace
Regional
Flight

Fig.1

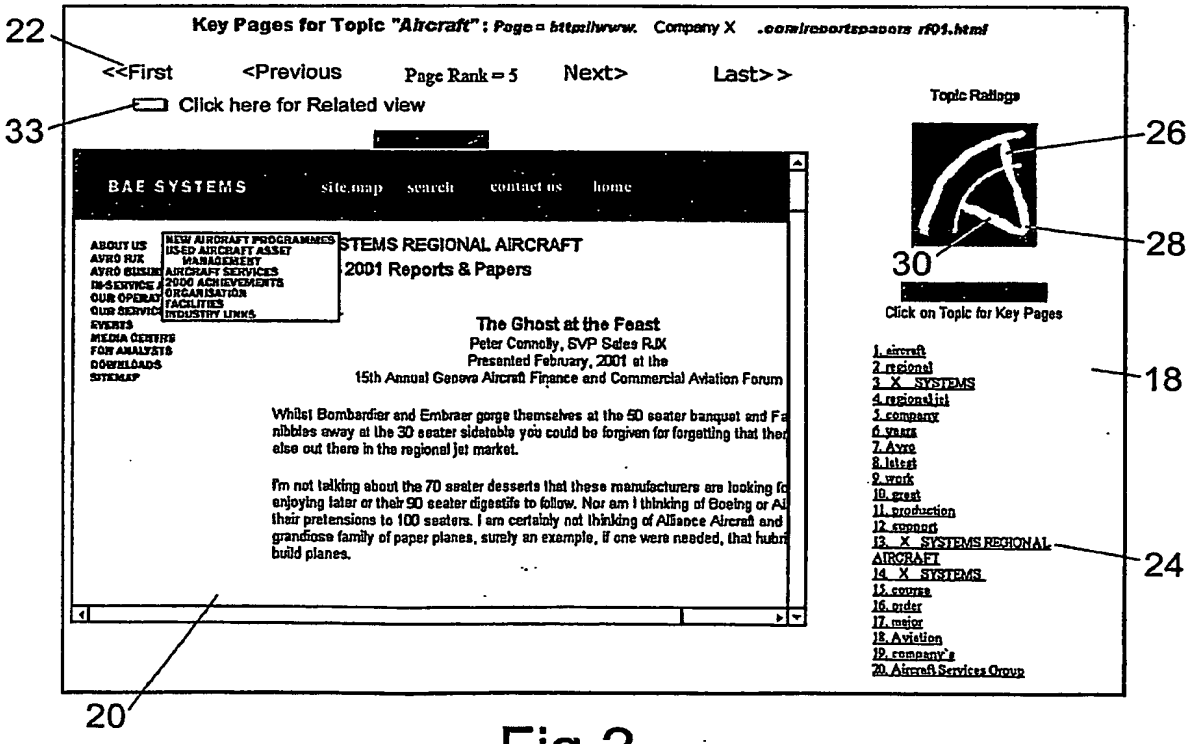
22
Key Pages for Topic "Aircraft" : Page = http://www. Company X .com/reportspapers rf01.html
<<First
<Previous
Page Rank = 5
Next>
Last>>
33
Click here for Related view
Topic Ratings
26
28
30
BAE SYSTEMS
site map
search
contact us
home
ABOUT US
AVRO RJX
NEW AIRCRAFT PROGRAMMES
USED AIRCRAFT ASSET MANAGEMENT
AIRCRAFT SERVICES
2000 ACHIEVEMENTS
ORGANISATION
FACILITIES
INDUSTRY LINKS
STEMS REGIONAL AIRCRAFT
2001 Reports & Papers
The Ghost at the Feast
Peter Connolly, SVP Sales RJX
Presented February, 2001 at the
15th Annual Geneva Aircraft Finance and Commercial Aviation Forum
Whilst Bombardier and Embraer gorge themselves at the 50 seater banquet and Fa
nibbles away at the 30 seater sidetable you could be forgiven for forgetting that ther
else out there in the regional jet market.
I'm not talking about the 70 seater desserts that these manufacturers are looking fo
enjoying later or their 90 seater digestifs to follow. Nor am I thinking of Boeing or Ai
their pretensions to 100 seaters. I am certainly not thinking of Alliance Aircraft and
grandiose family of paper planes, surely an example, if one were needed, that hubri
build planes.
Click on Topic for Key Pages
1. aircraft
2. regional
3. X SYSTEMS
4. regionaljet
5. company
6. years
7. Avro
8. latest
9. work
10. great
11. production
12. support
13. X SYSTEMS REGIONAL AIRCRAFT
14. X SYSTEMS
15. course
16. order
17. major
18. Aviation
19. company's
20. Aircraft Services Group
18
24
20

Fig.2

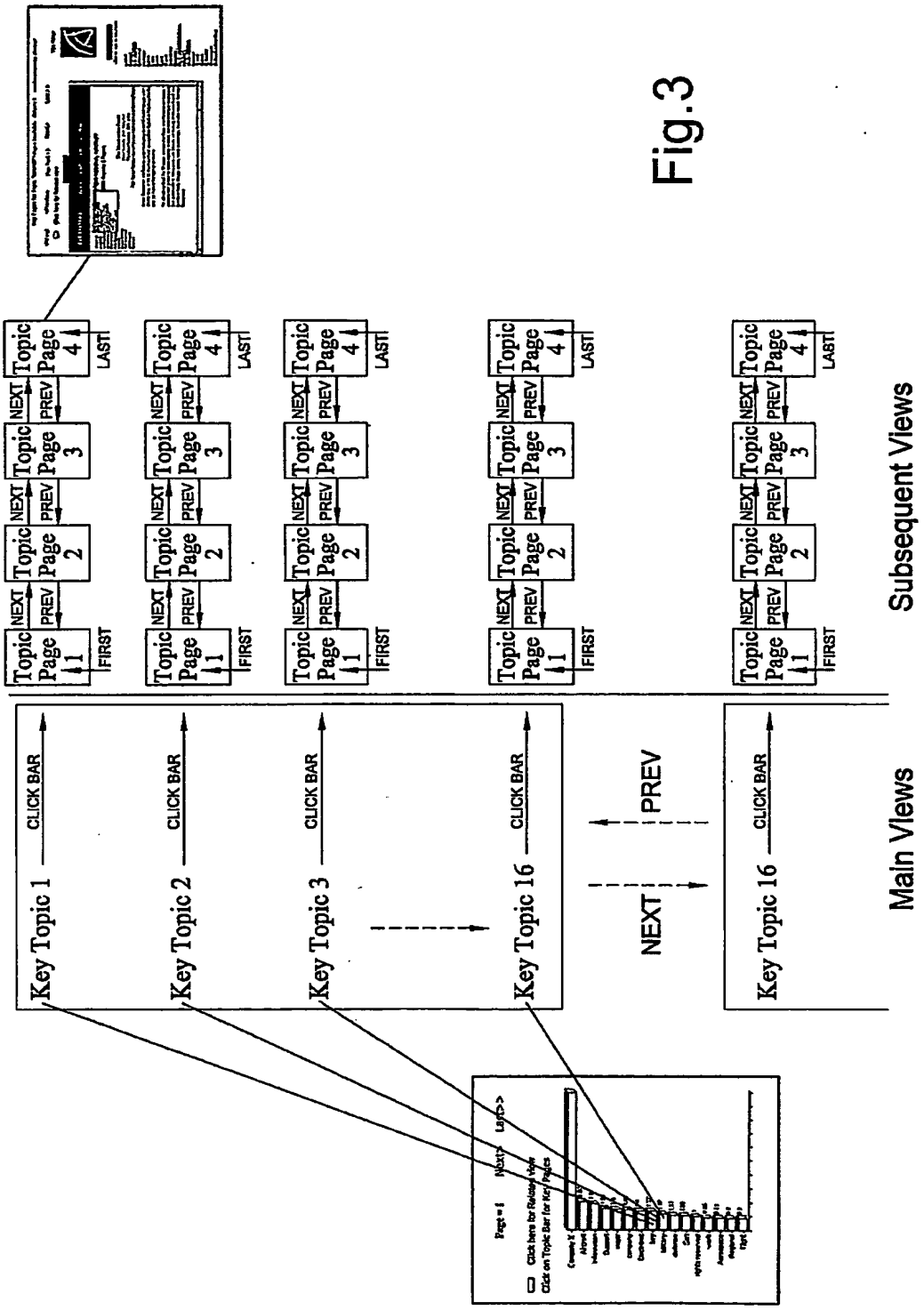
Key Topic 1
CLICK BAR
Key Topic 2
CLICK BAR
Key Topic 3
CLICK BAR
Key Topic 16
CLICK BAR
NEXT
PREV
Key Topic 16
CLICK BAR
Main Views
Subsequent Views
Topic Page 1 FIRST
Topic Page 2 NEXT PREV
Topic Page 3 NEXT PREV
Topic Page 4 LAST NEXT PREV

Fig.3

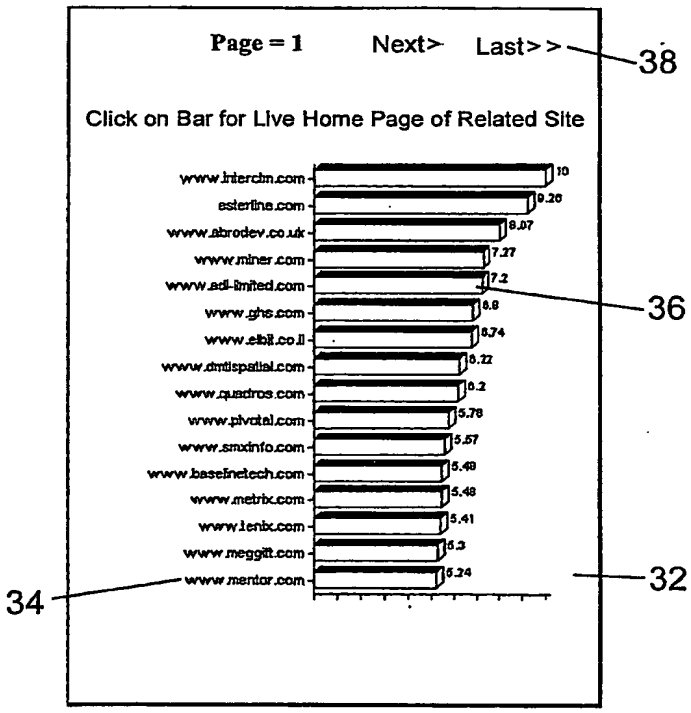

Fig.4

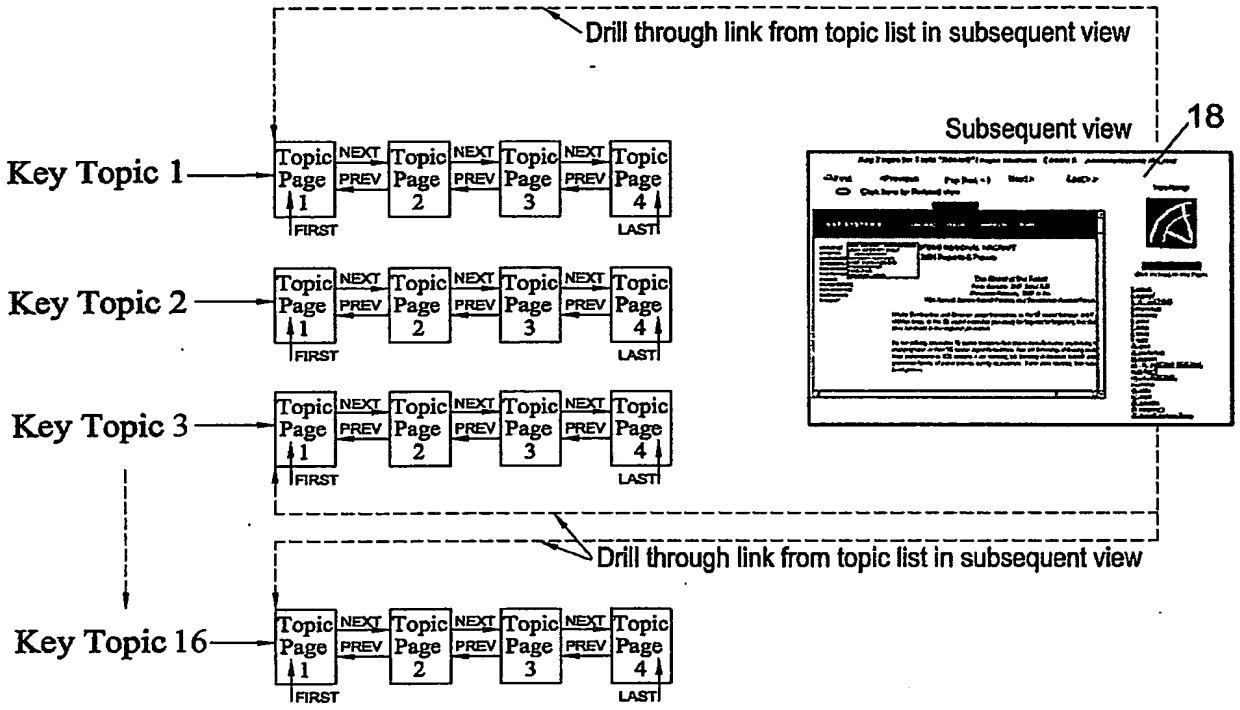
Drill through link from topic list in subsequent view
Subsequent view
18
Key Topic 1
Key Topic 2
Key Topic 3
Key Topic 16
Topic Page 1
Topic Page 2
Topic Page 3
Topic Page 4
NEXT
PREV
FIRST
LAST
Drill through link from topic list in subsequent view

Fig.5

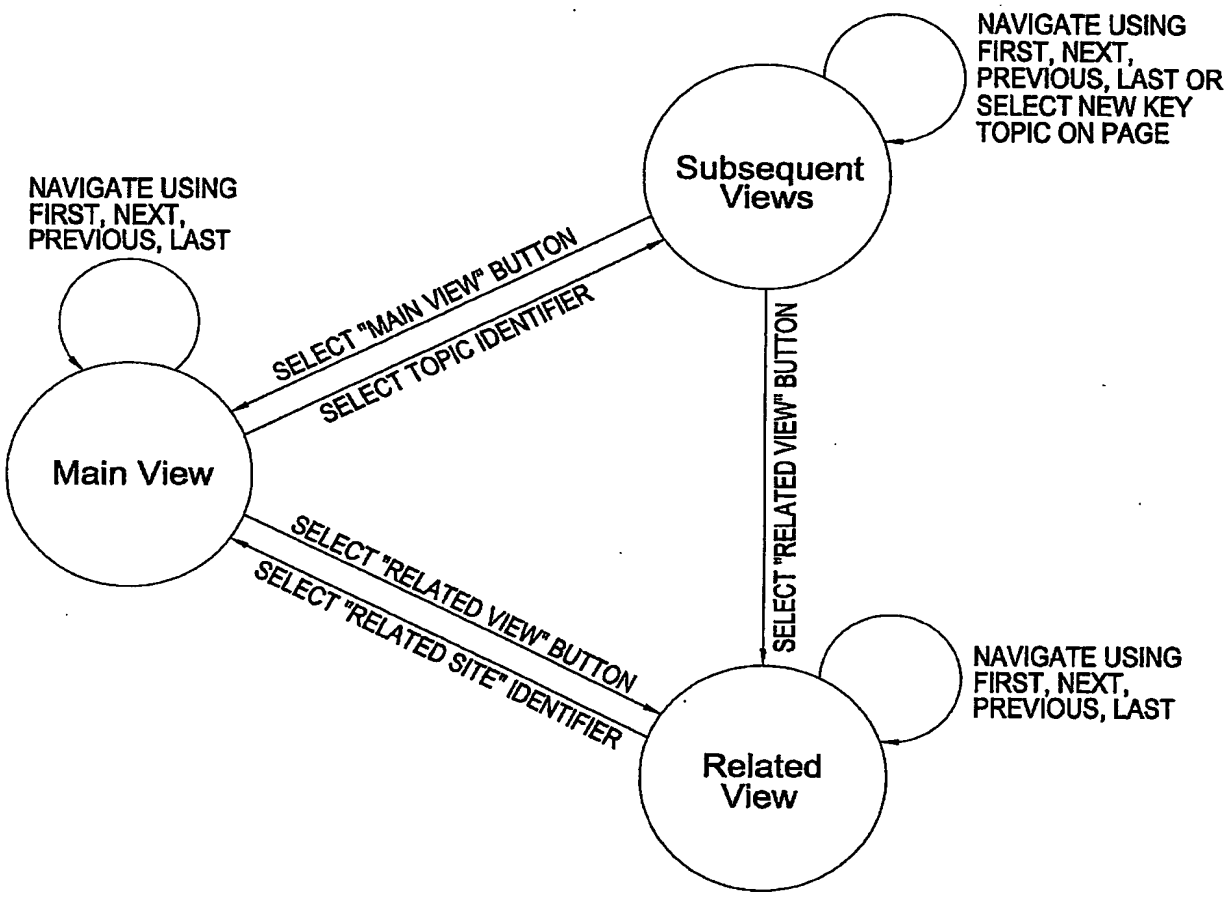
NAVIGATE USING FIRST, NEXT, PREVIOUS, LAST OR SELECT NEW KEY TOPIC ON PAGE
Subsequent Views
NAVIGATE USING FIRST, NEXT, PREVIOUS, LAST
SELECT "MAIN VIEW" BUTTON
SELECT TOPIC IDENTIFIER
Main View
SELECT "RELATED VIEW" BUTTON
SELECT "RELATED VIEW" BUTTON
SELECT "RELATED SITE" IDENTIFIER
NAVIGATE USING FIRST, NEXT, PREVIOUS, LAST
Related View

Fig.6

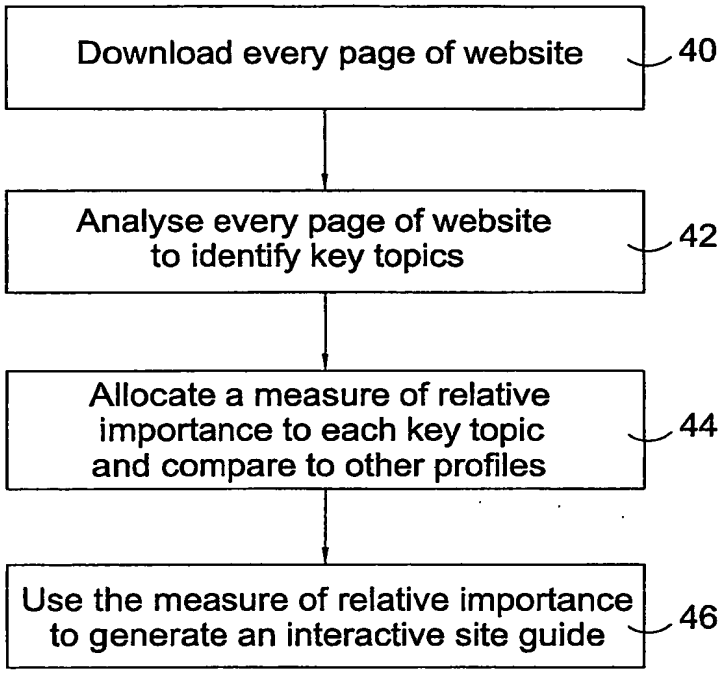
Download every page of website
40
Analyse every page of website to identify key topics
42
Allocate a measure of relative importance to each key topic and compare to other profiles
44
Use the measure of relative importance to generate an interactive site guide
46

Fig.7

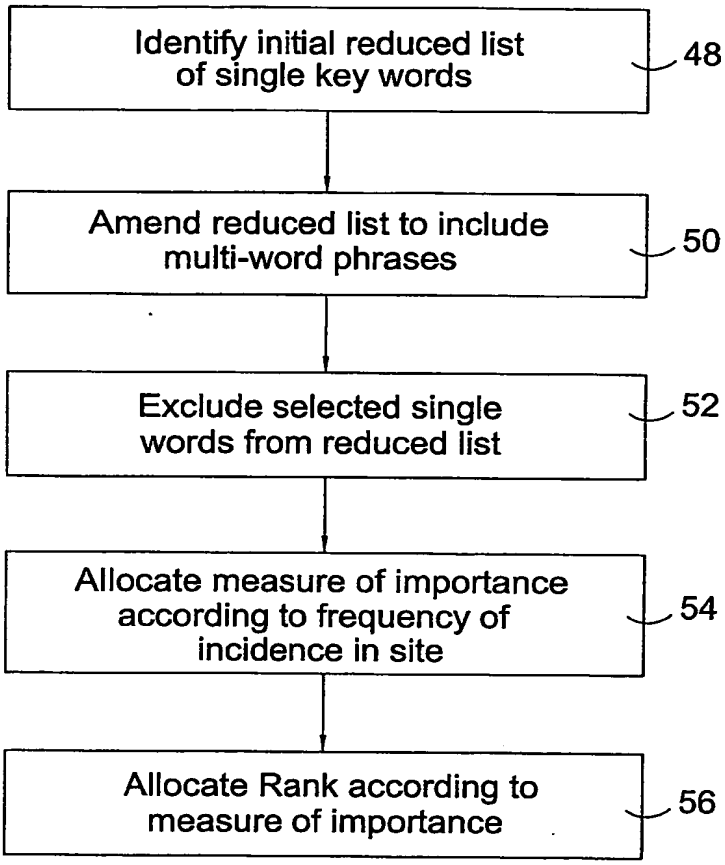
Identify initial reduced list of single key words
48
Amend reduced list to include multi-word phrases
50
Exclude selected single words from reduced list
52
Allocate measure of importance according to frequency of incidence in site
54
Allocate Rank according to measure of importance
56

Fig.8

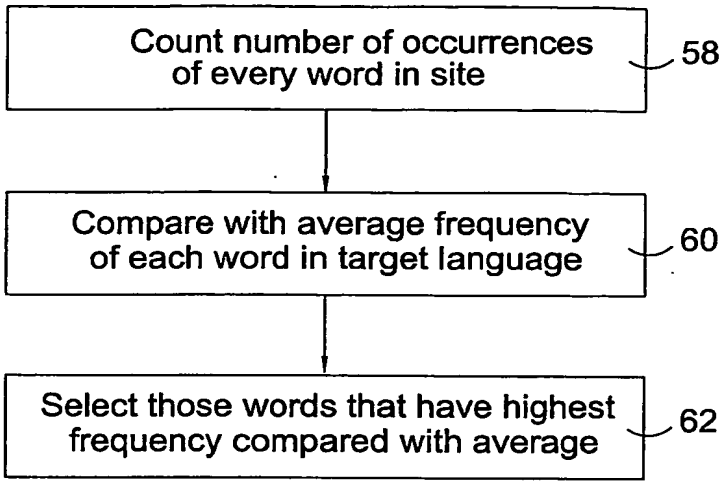

Fig.9

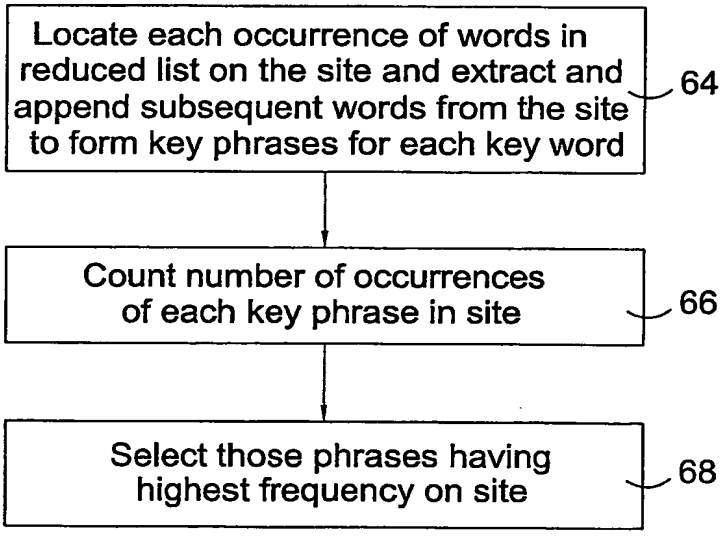

Fig.10

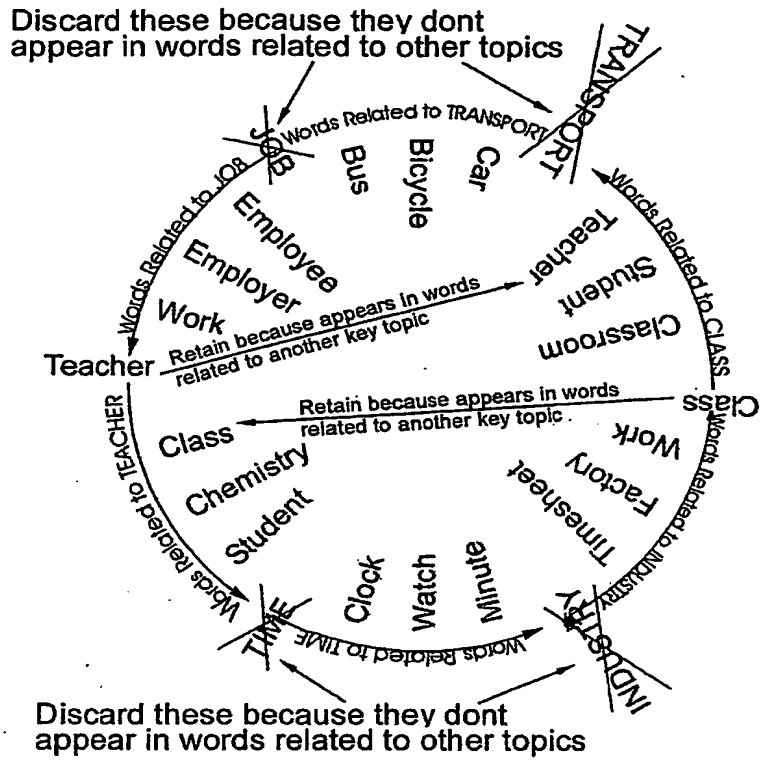
Discard these because they dont appear in words related to other topics
Words Related to TRANSPORT
Bus
Bicycle
Car
Employee
Employer
Work
Teacher
Student
Classroom
Retain because appears in words related to another key topic
Class
Chemistry
Student
Work
Factory
Timesheet
Clock
Watch
Minute
Discard these because they dont appear in words related to other topics

Fig.11

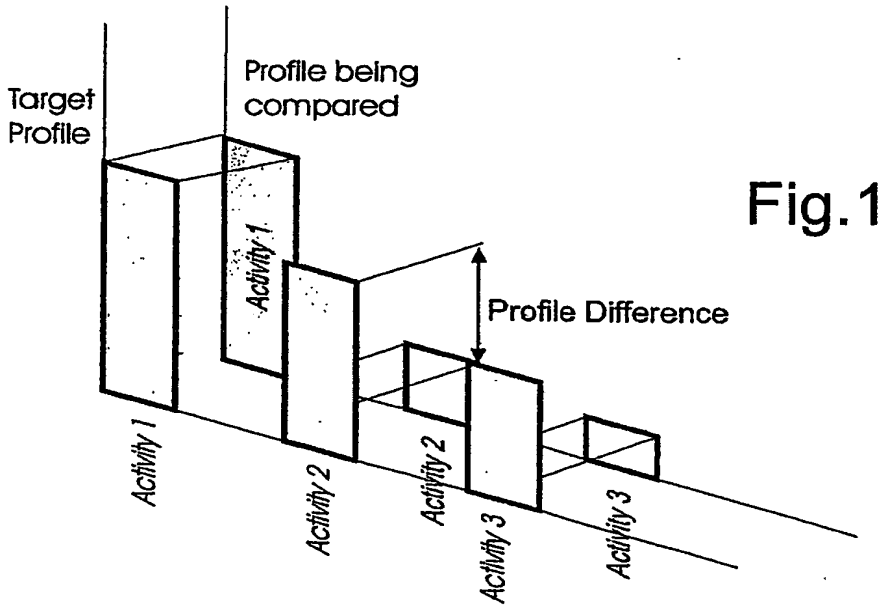
Target Profile
Profile being compared
Activity 1
Profile Difference
Activity 1
Activity 2
Activity 2
Activity 3
Activity 3

Fig.12

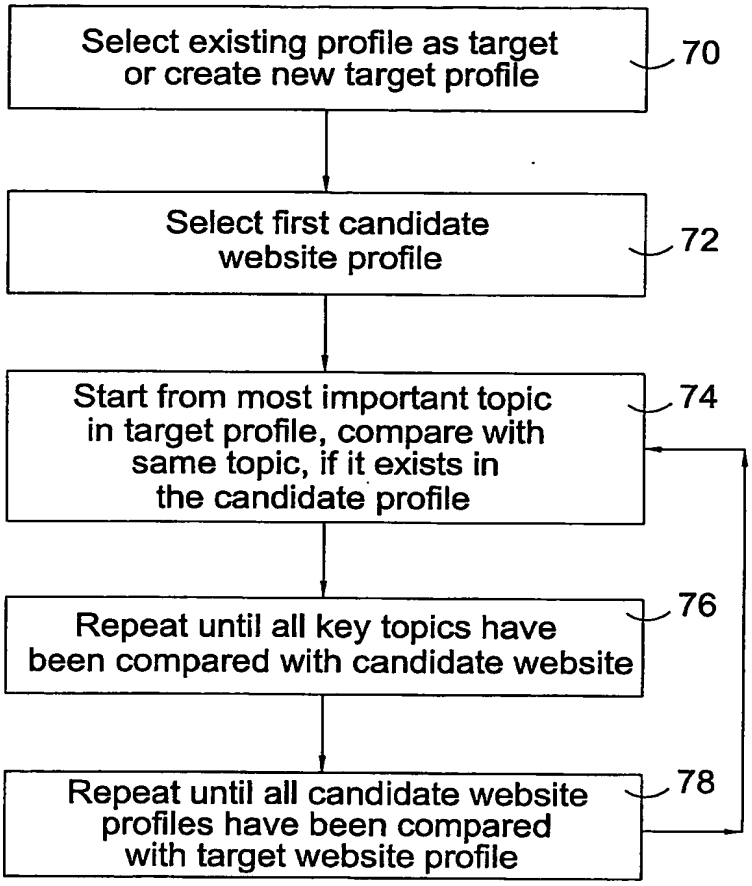
Select existing profile as target or create new target profile
70
Select first candidate website profile
72
Start from most important topic in target profile, compare with same topic, if it exists in the candidate profile
74
Repeat until all key topics have been compared with candidate website
76
Repeat until all candidate website profiles have been compared with target website profile
78

Fig.13

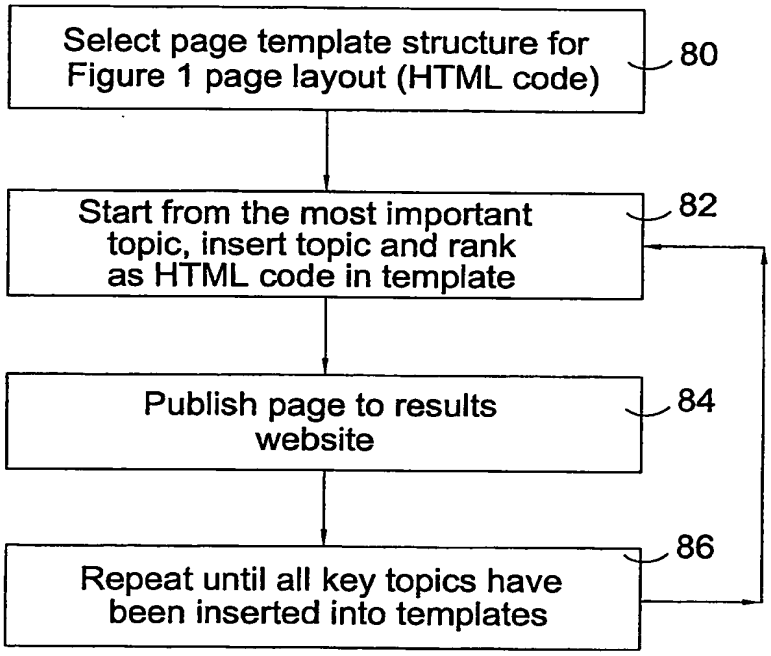
Select page template structure for Figure 1 page layout (HTML code)
80
Start from the most important topic, insert topic and rank as HTML code in template
82
Publish page to results website
84
Repeat until all key topics have been inserted into templates
86

Fig.14

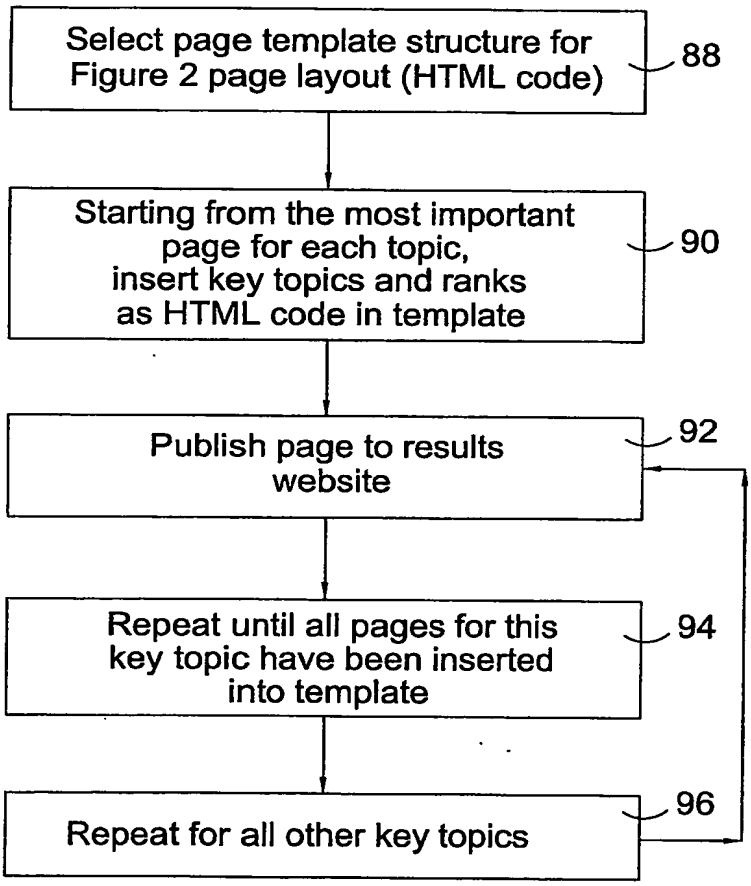
Select page template structure for Figure 2 page layout (HTML code)
88
Starting from the most important page for each topic, insert key topics and ranks as HTML code in template
90
Publish page to results website
92
Repeat until all pages for this key topic have been inserted into template
94
Repeat for all other key topics
96

Fig.15

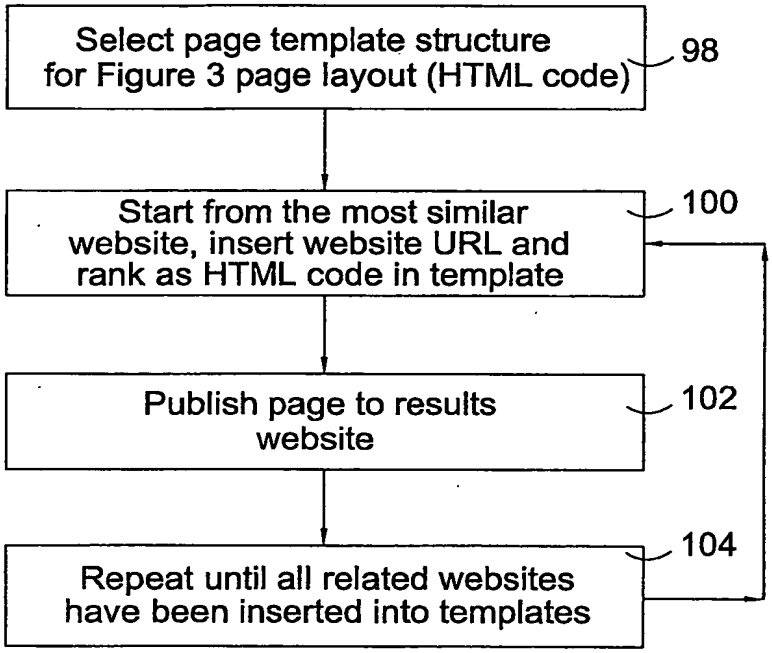

Fig.16

INTERNATIONAL SEARCH REPORT

International Application No
PCT/GB2004/001749

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G06F17/30

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, WPI Data, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	MOELLER G ET AL: "AUTOMATIC CLASSIFICATION OF THE WORLD WIDE WEB USING UNIVERSAL DECIMAL CLASSIFICATION" ONLINE INFORMATION. INTERNATIONAL ONLINE INFORMATION MEETING PROCEEDINGS, XX, XX, 7 December 1999 (1999-12-07), pages 231-237, XP001037706	1-9,11, 13,15
Y	page 233, left-hand column, lines 15-26 page 236, left-hand column, line 12 - right-hand column, line 16 figures 5,6	10,12, 14,16

-/--

[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
5 October 2004	07 01 2005

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax (+31-70) 340-3016	Denoual, M

INTERNATIONAL SEARCH REPORT

Intl ional Application No
PCT/GB2004/001749

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	XIA LIN ED - BOOKSTEIN A ET AL ASSOCIATION FOR COMPUTING MACHINERY: "A SELF-ORGANIZING SEMANTIC MAP FOR INFORMATION RETRIEVAL" PROCEEDINGS OF THE ANNUAL INTERNATIONAL ACM/SIGIR CONFERENCE ON RESEARCH AND DEVELOPMENT IN INFORMATION RETRIEVAL. CHICAGO, OCT. 13 - 16, 1991, PROCEEDINGS OF THE ANNUAL INTERNATIONAL ACM/SIGIR CONFERENCE ON RESEARCH AND DEEVELOPMENT IN INFORMATION R, vol. CONF. 14, 13 October 1991 (1991-10-13), pages 262-269, XP000239177	1-9,11, 13,15
Y	page 264, right-hand column, line 25 - page 267, left-hand column, line 25 figures 3,4	10,12, 14,16

X	US 5 911 140 A (PEDERSEN JAN O ET AL) 8 June 1999 (1999-06-08)	1-9,11, 13,15
Y	abstract column 1, line 23 - column 2, line 6 column 3, line 47 - column 4, line 47 figure 1	10,12, 14,16

X	DITTENBACH M ET AL: "Business, culture, politics, and sports - how to find your way through a bulk of news? On content-based hierarchical structuring and organization of large document archives" DATABASE AND EXPERT SYSTEMS APPLICATIONS. 12TH INTERNATIONAL CONFERENCE, DEXA 2001. PROCEEDINGS (LECTURE NOTES IN COMPUTER SCIENCE VOL.2113) SPRINGER-VERLAG BERLIN, GERMANY, 3 September 2001 (2001-09-03), pages 200-210, XP002295474 ISBN: 3-540-42527-6	1-9,11, 13,15
Y	page 200, line 1 - page 201, line 17 page 206, line 8 - page 209, line 6 figures 1-3	10,12, 14,16

Y	US 2002/046257 A1 (KILLMER MARK) 18 April 2002 (2002-04-18) abstract paragraphs [0025], [0026] paragraphs [0033], [0034] claim 1	10,12, 14,16

INTERNATIONAL SEARCH REPORT

Information on patent family members

Int.....onal Application No
PCT/GB2004/001749

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5911140 A	08-06-1999	NONE	
US 2002046257 A1	18-04-2002	AU 8107001 A	18-02-2002
		WO 0213045 A2	14-02-2002

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB2004/001749

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-16

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-16

   System and Method to display topics of a group of documents

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2. claims: 17-28

   Method and system of indentifying differences between groups of documents.

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3. claims: 29-37

   Method and system of navigating between groups of document

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4. claims: 38-49

   Method and system of determining and scoring topics in a group of documents.
